

In Situ XAS for Characterization of Solid Catalysts

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Abstract:

An introduction of catalysts, catalysis, and the appropriateness of XAS to the study of catalysts was be given. The need for in situ measurements was stressed and the implications for in situ measurement with respect to experimental requirements were discussed. There followed two examples of our work at Hasylab. The first example began with a description of our new powder-bed reactor for in-situ fluorescence mode measurements, and then some results of measurement of the Mn K edge of promoted sulfated zirconia catalysts were presented. The second example began with a description of our in situ, pellet cell for transmission measurements, followed by results showing the structural evaluation of heteropoly acids under reaction conditions.